

AMENDMENTS TO THE DRAWINGS

Formal Drawings are enclosed

REMARKS

Claims 1-20 are currently pending in the application. In an Office Action dated April 19, 2005 ("Office Action"), the Examiner requested corrected formal drawings, rejected claims 1-20 under 35 U.S.C. § 112, second paragraph, as being indefinite, rejected claims 1-20 under 35 U.S.C. § 102(a) as being anticipated by Lachelt et al., U.S. Patent No. 6,148,338 ("Lachelt"), rejected claims 1-13 under 35 U.S.C. § 103(a) as being unpatentable over Barbour et al., U.S. Patent No. 3,984,817 ("Barbour") in view of Knight et al., U.S. Patent No. 5,745,693 ("Knight"), and rejected claims 14-20 under 35 U.S.C. § 103(a) as being unpatentable over Barbour in view of Applicant Admitted Prior Art. Formal drawings are enclosed. Applicants' representative has amended claims 1 and 6 to address certain of the 35 U.S.C. § 112, second paragraph, rejections, and respectfully traverses the remaining 35 U.S.C. § 112, second paragraph, rejections. Applicants' representative respectfully traverses the 35 U.S.C. § 102(a) and 35 U.S.C. § 103(a) rejections.

35 U.S.C. § 112, Second Paragraph, Rejections

With regard to the 35 U.S.C. § 112, second paragraph, rejections of claims 1-20, Applicants' representative has amended claims 1 and 6, and provides the following explanations.

First, with regard to Section 5(A) of the Office Action, Applicants' representative has amended claim 6 to replace the phrase "the first event" with the phrase "a first event." With regard to Section 5(B)(i), Applicants' representative has added the word "the" prior to the occurrence of the phrase "specified requestor" in line 5, although Applicants' representative believes that the claim was sufficiently clear as originally submitted. With regard to the phrase "related watermark event" used in lines 7 and 10, Applicants' representative cannot understand the Examiner's confusion. In line 5, claim 1 recites a step of "searching for a watermark event related to the specified event type and the specified requestor." The "watermark event" mentioned in the searching step refers, in claim 1, to a goal of the search. At the beginning of the search, it is not clear whether

or not such an entry will be found. In line 7, claim 1 recites "when a related watermark event is found" and in line 10, claim 1 recites "when a related watermark event is not found." The phrase "related watermark event" used in line 7 refers, in claim 1, to a specific event found in the event log, and the phrase "related watermark event" used in line refers, in claim 1, to an unfulfilled goal. It would be improper to use the article "the" instead of the article "a" in the two phrases "a related watermark event" used in lines 7 and 10, because neither a specific watermark event nor an unfulfilled goal is mentioned on line 5.

With regard to Section 5(B)(ii), the phrase "a watermark event" used in line 6 of claim 2 refers, in claim 2, to the type of the "selected candidate event" recited immediately before the phrase "a watermark event" on line 6 of claim 2. Similarly, the phrase "a watermark event," used in lines 10-11 of claim 2, refers, in claim 2, to the type of the "least recently logged event" occurring before the phrase "a watermark event" on line 10 of claim 2. There may be multiple watermark events in an event log, and a given event may or may not be a watermark event. Applicants' representative sees no ambiguity in originally submitted claim 2.

Similarly, with regard to Section 5(B)(iii), Applicants' representative cannot understand how the language of claim 10 lacks clarity. The phrase "a new watermark event" refers, in claim 10, to a new watermark event added to the event log following the searching step, and therefore could not be a goal of the searching step recited in claim 1.

With regard to Section 5(B)(iv), claims 17-20 refer to fields contained in watermark event entries included in the event log of the claimed system, and therefore use the article "a" preceding the phrase "watermark event entry." The phrase "watermark event" in claim 14 refers to an event associated, by the system, with a search in order to note the extent of the search. The phrase "watermark event entry" refers, in claims 17-20, to a stored, encoded entry within an event log corresponding to a watermark event. Applicants' representative can see no ambiguity or lack of clarity in the language of claims 14 and 17-20.

Finally, with regard to Section 5(B)(v), event reporting logic is an element

of the claimed event reporting system. Since there are multiple elements in the event reporting system, it is clear that the phrase "event reporting logic" refers to an element of, or portion of, the claimed "event reporting system."

In short, Applicants' representative believes the originally submitted claims are both clear and correct, with the possible exception of the lack of proper antecedent basis held out by the Examiner with respect to claim 6, which has been corrected in the above amendment.

35 U.S.C. § 102(a) and 35 U.S.C. § 103(a) Rejections

Although two references cited in the Office Action are at least related to event logging, unlike the unrelated references cited in the previous office action, none of the currently cited references makes any mention to, or suggestion of, watermark events, or the claimed method and system of the current application. For this reason, Applicants' representative again includes a brief summary of the method claimed in claim 1 of the current application, prior to discussing the rejections.

Brief Summary

Claim 1 is discussed, below, as representative of the claims rejected as anticipated by Lachelt. Claim 1 is provided, below, for the Examiner's convenience.

1. A method for reporting events stored in an event log within an electronic device, the method comprising:
 - receiving a request for a report of events of a specified type from a specified requestor;
 - searching for a ***watermark event*** related to the specified event type and the specified requestor;
 - when a related watermark event is found, using a value stored within the watermark to select an event at which to begin searching the event log for events of the specified type to report to the specified requestor;***
 - when a related ***watermark event*** is not found, selecting a default event at which to begin searching the event log for events of the specified type to report to the specified requestor; and
 - searching the event log starting at the selected event to find and report events of the specified type. (emphasis added)

As described in the current application, including the Summary of the Invention section,

beginning on line 27 of page 3, various embodiments of the invention discussed in the current application are directed to methods and systems for reporting errors stored in an event log within electronic devices lacking easily programmable software control and extensive RAM memories. As described in the Background of the Invention section of the current application, reporting events from event logs to multiple, remote recipients can be problematic. Event logs may be overrun, because of small event-log buffers, events may be reported multiple times to a particular recipient, and events generally cannot be selectively reported. The event logs are typically stored in EEPROM, rather than in RAM memory, and are constructed and maintained by relatively low complexity firmware or logic circuits within the electronic device. In order to overcome many of the problems associated with event logs, certain embodiments of the present invention employ a new type of event that can be inserted, along with common events, referred to as a "watermark event," and discussed in the current application beginning on line 4 of page 18. The watermark event may include an offset field and may contain additional fields that may relate the watermark event to a specific recipient of event reports as well as to a specific type of event. The offset field of a watermark event may be used to indicate a position within the event log from which to begin returning events to a recipient. Thus, when a recipient receives a set of events from the event log, a watermark can be inserted into the event log, preventing the already received events from again being reported to the recipient, and avoiding the necessity to re-read already reported events from the event log file. Claim 1 clearly includes a watermark event element that is clearly claimed to include using a "value stored within the watermark to select an event at which to begin searching the event log for events of the specified type to report to the specified requestor."

35 U.S.C. § 102(a) Rejections

In discussing the Examiner's rejections of claims 1-20 as being anticipated by Lachelt, in Section 7 of the Office Action, the Examiner paraphrases claim 1, providing cites to various sections of Lachelt that the Examiner apparently believes to teach each of the cited claim elements. For example, the Examiner appears to state that

lines 9-12 of column 7 of Lachelt teach the step of "searching for a watermark event related to the specified event type and specified requestor." Lachelt does not disclose watermark events either in the cited portion of Lachelt, or in any other portion of Lachelt's disclosure.

As clearly claimed in claim 1 of the current application, and as described in the above, brief summary, a watermark event is used in embodiments of the currently claimed method and system to note the extent of a previous search, or, in other words, to extent to which events of a specified type requested by a specified requestor have been previously returned to the specified requestor, so that re-reading and re-reporting of already reported events to requestors can be avoided. A watermark in a bathtub indicates the highest, previous level of water in the bathtub during some recent time period, and an event log watermark, in certain embodiments of the present invention, similarly indicates the most recently logged event within an event log of a specific type reported to a requestor, or, equivalently, the least recently logged event not yet reported to the requestor.

Lachelt does not disclose a special event inserted into an event log to serve as a watermark event. The cited section of Lachelt discusses Lachelt's event index files and an offset included in an event-index-file entry of Lachelt's event logging system. As Lachelt explicitly states in lines 20 - 22 of column 5, "[t]he event index file exists solely for use by the writer to enable the writer to find the location of a previously logged event. The location of an event is used when recording entries in the stream log file and the correlation log file." In other words, the event index file is used only when writing entries to Lachelt's stream log files and correlation log files, and not when reading events from Lachelt's event log file for reporting. By contrast, the currently claimed watermark event is used for reading events from an event log file and for reporting events read from the event log.

The event index files, stream log files, and correlation log files are separate files from the event log, as clearly stated in numerous places in Lachelt, including lines 15-18 of column 3:

The event store is made up of a number of different non-textual files organized in sets. Each set contains an event log file and an event index file. Each set may also contain one or more stream log files and correlation log files.

By contrast, a watermark event, as clearly claimed in claim 1 and as clearly described in the current application, refers to a special type of log entry, used in embodiments of the present invention, that is entered into the event log, and is neither a separate file, distinct from the event log file, nor an entry in a separate file, distinct from the event log file.

Finally, as discussed, with reference to Figures 10-12, beginning on line 28 of column 8 and continuing to line 14 of column 9, Lachelt describes a method by which logged events are read in Lachelt's disclosed event logging system. First, as described beginning on line 33 of column 8, the event-log reader determines the proper event log file to begin reading, because in Lachelt's system, multiple different sets of files are used, in a circular buffer fashion, with continuous overwrite of the least recently written entries in a least recently current file. The circular-buffer nature of these multiple event log files is discussed beginning on line 62 of column 4. Once the proper initial event log file is determined, then "each event of the initial event log file is read sequentially from the file" (Lachelt, column 8, lines 50-52). Once all these entries have been sequentially read, the event-log reader turns to the next event log file and sequentially reads all entries in that file, repeating the process until all event entries in all event log files have been read, as clearly stated on lines 10-14 of column 9 of Lachelt. Please note that, as discussed above, the event index files are not accessed or used during reading of events from the event log files. This aspect of Lachelt's system is summarized on lines 47-52 of column 4, in which Lachelt states the basic access mechanisms provided to multiple readers of the event log, including sequential reading of *all* logged events in the order they were received, sequential reading of *all* events that have flowed out of a specific stream, and finding *all* events that have been correlated with a specific known event. Lachelt discloses no provision for inserting watermark entries into event logs or for otherwise short circuiting event log reading or event reporting using watermark entries.


35 U.S.C. § 103(a) Rejections

The 35 U.S.C. § 103(a) rejections of claims 1-13 as being unpatentable over Barbour in view of Knight are unfounded. For example, the Examiner states that "searching for a watermark event related to the specified event type and specified requestor" is disclosed in Barbour in lines 7-15 and 22-26 of column 2 in lines 35-41 of column 4. Lines 7-15 of column 2 discuss a search table that includes a number of entries equal to the number of programs in the memory of a data processing system. These entries primarily contain pointers to addresses of associated programs in memory. Barbour's disclosed system also includes a start-point table that addresses certain of the entries in the search table. On lines 22-26 of column 2, Barbour describes receiving an instruction, searching a start-point table for entries in a search table, and then either using the entry found in the start-point table, or further searching the search table, in order to find a program in memory corresponding to the instruction. The cited portion of column 4 discusses entries included in a search-table entry, including an instruction which may be identical to the instruction received for the search. The cited portions of Barbour are completely unrelated to event logs and event reporting, and do not mention or suggest watermarks of any kind. Hierarchical search tables are useful and well known, but are not event logs. Search tables for memory-resident programs are simply unrelated to event logs and event reporting.

Barbour, in its entirety, is completely unrelated to events, event logging, and event reporting. Barbour does not once mention events, event logging, event reporting, or any equivalent terms or concepts. Barbour is, in other words, completely unrelated to the current application. The rejections of claims 1-13 under 35 U.S.C. § 103(a) over Barbour in view of Knight, and the rejections of claims 14-20 under 35 U.S.C. § 103(a) over Barbour in view of that which the Examiner considers to be admitted prior art, are both primarily based on a completely unrelated reference, and are therefore unfounded.

In Applicant's representative's opinion, all of the claims in the current application are clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,
Bill Thomas and Rajiv Kumar Grover
Olympic Patent Works PLLC


Robert W. Bergstrom
Registration No. 39,906

Enclosures:

Postcards (2)
Transmittal in duplicate
Drawing Transmittal
Two sheets of formal drawing (Figs. 1-2)

Olympic Patent Works PLLC
P.O. Box 4277
Seattle, WA 98194-0277
206.621.1933 telephone
206.621.5302 fax